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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,087	09/20/2005	Takeshi Nakamura	046124-5346	6192

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EXAMINER	
GERRITY, STEPHEN FRANCIS	
ART UNIT	PAPER NUMBER
3721	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/519,087	NAKAMURA ET AL.	
	Examiner	Art Unit	
	Stephen F. Gerrity	3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 December 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/23/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. § 119. The certified copy has been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

Information Disclosure Statement

2. Receipt is acknowledged of an Information Disclosure Statement, filed 23 December 2004, which has been placed of record in the file. An initialed, signed and dated copy of the PTO-1449 form is attached to this Office action.

Drawings

3. The drawings are objected to because figures 6A and 6B are much too dark making for a difficult understanding of the figures content.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Mamoru **(JP 2000-325431)**.

The Mamoru reference discloses an apparatus for manufacturing an aspherical seamless capsule (10') (see title of the invention) comprising: a heating part (2) for heating a spherical seamless capsule (10) having a filler encapsulated with a shell membrane; and a forming part (3) for forming said seamless capsule (10) into an aspherical shape (10'), while said shell membrane of said seamless capsule heated by

said heating part is in a semi-sol state (see translated abstract). [applicant's attention is also directed to the machine generated English language translation attached hereto].

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 1, 4/1 and 5/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mamoru **(JP 2000-325431)** in view of Draisey **(WO 01/68032)**.

Regarding claim 1, the Mamoru reference discloses a method for manufacturing an aspherical seamless capsule comprising: a step for providing a seamless capsule (10) having a filler encapsulated with a shell membrane; a step for heating (2) the seamless capsule obtained so that the shell material may get to a semi-sol state; and a step for forming (3 and 4) the seamless capsule obtained in the heating step into a predetermined aspherical shape. The Mamoru reference meets all of applicant's claimed subject matter with the exception of the step for drying the seamless capsule provided in the providing step until a predetermined percentage content of solvent in the shell membrane reaches a predetermined value. The Draisey reference discloses that it is old and well known in the art to include a step of drying a film (18) used for forming until a predetermined percentage content of solvent in the shell membrane reaches a predetermined value (see page 3, line 20 through page 4, line 14). It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was

made, to have modified the Mamoru method by having included the step of drying the seamless capsule provided in the providing step until a predetermined percentage content of solvent in the shell membrane reaches a predetermined value, as suggested by Draisey, in order to have the shell membrane at an equilibrium condition.

Regarding claim 4/1, the Mamoru process, as now modified by Draisey, does not disclose the forming part is a compression molding process using dies. The examiner takes Official Notice that it is old and well known in the art to use a compression molding process using dies to shape capsules in a batch manner. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have further modified the Mamoru process to have the forming step comprise a compression molding process using dies, as is known in the prior art, for the purpose of shaping the capsules in a batch manner.

Regarding claim 5/1, the Marmoru process teaches that the forming in the forming step is carried out while cooling (4) the seamless capsule.

9. Claim 2, 4/2 and 5/2 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art, as applied to claim 1 above, and further in view of Wittwer et al. **(EP 0090600)**.

Regarding claim 2, the Mamoru method, as modified by Draisey, meets all of applicant's claimed subject matter with the exception of the shell membrane is a material containing water as a solvent, and said shell membrane of said seamless capsule obtained in said second step has a solvent content of 20% by weight or less. The Wittwer et al. reference discloses that better capsules are obtained when the water

content as a solvent is in the range between 10-20% and that the best capsules are obtained when the water content as a solvent is in the range between 12-18% (see page 18, last paragraph). It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have modified the Mamoru process by having had the shell membrane as a material containing water as a solvent, and the shell membrane of the seamless capsule obtained in the drying step has a solvent content of 20% by weight or less, as taught by Wittwer et al., in order to obtain the best capsules.

Regarding claim 4/2, the Mamoru process, as now modified by Draisey and Wittwer et al., does not disclose the forming part is a compression molding process using dies. The examiner takes Official Notice that it is old and well known in the art to use a compression molding process using dies to shape capsules in a batch manner. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have further modified the Mamoru process to have the forming step comprise a compression molding process using dies, as is known in the prior art, for the purpose of shaping the capsules in a batch manner.

Regarding claim 5/2, the Marmoru process teaches that the forming in the forming step is carried out while cooling (4) the seamless capsule.

10. Claims 3/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art, as applied to claim 1 above, further in view of Grosswald **(WO 92/21311)**.

The Mamoru process, as modified by Draisey, does not disclose the heating part is a heater using microwave; as found in the translation paragraph [0026] the

temperature of the water jacket for heating is adjustable by a not shown heater. The Grosswald et al. reference discloses at page 17, lines 20-30 that microwave heating is one of many different types of heaters that may be used to heat capsules. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have modified the Mamoru process by having substituted a microwave heater for the not shown heater of Mamoru, as the substitution of one type of heater for another is clearly suggested by Grosswald, in order to heat capsules.

11. Claims 3/2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art, as applied to claim 2 above, further in view of Grosswald **(WO 92/21311)**.

The Mamoru process, as modified by Draisey and Wittwer et al., does not disclose the heating part is a heater using microwave; as found in the translation paragraph [0026] the temperature of the water jacket for heating is adjustable by a not shown heater. The Grosswald et al. reference discloses at page 17, lines 20-30 that microwave heating is one of many different types of heaters that may be used to heat capsules. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have modified the Mamoru process by having substituted a microwave heater for the not shown heater of Mamoru, as the substitution of one type of heater for another is clearly suggested by Grosswald, in order to heat capsules.

12. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mamoru **(JP 2000-325431)** in view of Grosswald **(WO 92/21311)**.

Regarding claim 7, the Mamoru reference does not disclose the heating part is a heater using microwave; as found in the translation paragraph [0026] the temperature of the water jacket for heating is adjustable by a not shown heater. The Grosswald et al. reference discloses at page 17, lines 20-30 that microwave heating is one of many different types of heaters that may be used to heat capsules. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have modified the Mamoru apparatus by having substituted a microwave heater for the not shown heater of Mamoru, as the substitution of one type of heater for another is clearly suggested by Grosswald, in order to heat capsules.

Regarding claim 8, the Mamoru apparatus, as now modified by Grosswald, does not disclose the forming part is a compression molding machine. The examiner takes Official Notice that it is old and well known in the art to use a compression molding machine to shape capsules in a batch manner. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have further modified the Mamoru apparatus to have the forming part (3) comprise a compression molding machine, as is known in the prior art, for the purpose of shaping the capsules in a batch manner.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references listed on the attached form (PTO-892) are cited to show various methods and machines for making capsules. All are cited as being of interest and to show the state of the prior art.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen F. Gerrity whose telephone number is 571-272-4460. The examiner can normally be reached on Monday - Friday from 5:30 - 2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stephen F. Gerrity
Primary Examiner
Art Unit 3721

21 December 2006